

OBSERVATIONS & RECOMMENDATIONS

After reviewing data collected from **HALFMOON LAKE** the program coordinators recommend the following actions.

FIGURE INTERPRETATION

- Figure 1: These graphs illustrate concentrations of chlorophyll-a in the water column. Algae are microscopic plants that are a natural part of lake ecosystems. Algae contain chlorophyll-a, a pigment necessary for photosynthesis. A measure of chlorophyll-a can indicate the abundance of algae in a lake. The historical data (the bottom graph) show a *stabilizing* in-lake chlorophyll-a trend. Algae concentrations were elevated in June possibly due to an increase in rain and, therefore, watershed runoff to the lake. The dominant algae in August were diatoms and the abundance was low. The mean chlorophyll concentration remains below the state mean. While algae are present in all lakes, an excess amount of any type is not welcomed. Concentrations can increase when there are external and internal sources of phosphorus, which is the nutrient algae depend upon for growth. It's important to continue the education process and keep residents aware of the sources of phosphorus and how it influences lake quality.
- Figure 2: Water clarity is measured by using a Secchi disk. Clarity, or transparency, can be influenced by such things as algae, sediments from erosion, and natural colors of the water. The graphs on this page show historical and current year data. The lower graph shows a *very stable* trend in lake transparency, although this year's average was one of the lowest ever recorded. The slight decrease in water clarity in June was most likely due to the increase in algal abundance at that time and the presence of ripples on the water's surface, which makes viewing difficult. Despite the strong winds and small waves noted in August the clarity reading was just below the state mean reference line. The 2000 sampling season was considered to be wet and, therefore, average transparency readings are expected to be slightly lower than last year's readings. Higher amounts of rainfall usually cause more eroding of sediments into the lake and streams, thus decreasing clarity.
- Figure 3: These figures show the amounts of phosphorus in the epilimnion (the upper layer in the lake) and the hypolimnion (the

lower layer); the inset graphs show current year data. Phosphorus is the limiting nutrient for plants and algae in New Hampshire waters. Too much phosphorus in a lake can lead to increases in plant growth over time. These graphs show a *fairly stable* trend for epilimnetic phosphorus levels and a *variable* trend for the hypolimnetic concentration. August results were fairly consistent with last season's, and were below the median for NH lakes. There was no epilimnion sample collected in June, and an error in the chemistry lab yielded no results for the hypolimnion, which makes it difficult to determine an overall phosphorus trend for the lake this season. One of the most important approaches to reducing phosphorus levels is educating the public. Humans introduce phosphorus to lakes by several means: fertilizing lawns, septic system failures, and detergents containing phosphates are just a few. Keeping the public aware of ways to reduce the input of phosphorus to lakes means less productivity in the lake. Contact the VLAP coordinator for tips on educating your lake residents or for ideas on testing your watershed for phosphorus inputs.

OTHER COMMENTS

- A resident of Halfmoon Lake made a complaint in the spring regarding an algae bloom that occurred in the area where the Route 28 Inlet enters. The resident suggested two horse farms could be potential watershed sources of phosphorus that would cause the algae bloom. An NHDES biologist visited the site in May to collect total phosphorus samples above and below the horse farms. There was not an excessive amount of phosphorus below either of the farms. In November another NHDES biologist met with personnel from the NH Department of Agriculture, Markets & Food (NHDAMF) and the owners of the horse farms to conduct investigations of the land. One of the farms, located on Bartlett Road, is not in the Route 28 Inlet subwatershed. Regardless, the NHDES biologist and personnel from NHDAMF determined neither farm is a threat to the water quality of Halfmoon Lake. If residents notice the bloom occurring again in the spring, please notify the VLAP Coordinator so that additional watershed investigations can be initiated.
- The conductivity of most of the sites tested this summer was slightly lower than last year's results (Table 6). Dugan's Inlet, Fern Hill Inlet, Horse Farm Inlet, and the Rt. 28 Inlet all had the largest reductions in salt and mineral content this summer. With the increased rainfall in the state this summer many of the inlets were flowing at quick enough rates to dilute any salts that were present in a timely manner. The conductivity of the Halfmoon Lake watershed has not yet reached excessive levels.
- The phosphorus concentrations at Dugan's Inlet, Fern Hill Inlet, and the Rt. 28 Inlet were reduced from last year's results (Table 8). This leads us to believe that the high results observed in 1999 were due to

the dry weather. Some inlets showed slight increases in phosphorus concentration this summer, but they were not excessive increases.

- The dissolved oxygen concentration was slightly depleted at the bottom 3 meters of the lake in August (Table 9). This has been the seasonal trend in Halfmoon Lake in the past. Low dissolved oxygen in the bottom of the lake indicates that decomposition is occurring. Bacteria use up the oxygen in the water column during this process.
- We would like to suggest that the association add one more sampling event to the program at Halfmoon Lake. The watershed encompasses a great deal of land area that is developed. Since weather patterns and activity in the watershed can change throughout the summer it is a good idea to sample the lake several times over the course of the season.

USEFUL RESOURCES

Through the Looking Glass: A Field Guide to Aquatic Plants. North American Lake Management Society, 1988. (603) 233-2836 or www.nalms.org

Road Salt and Water Quality, WD-WSQB-7, NHDES Fact Sheet, (603) 271-3503 or www.state.nh.us

Best Management Practices to Control Nonpoint Source Pollution: A Guide for Citizens and Town Officials, NHDES-WD 97-8, NHDES Booklet, (603) 271-3503

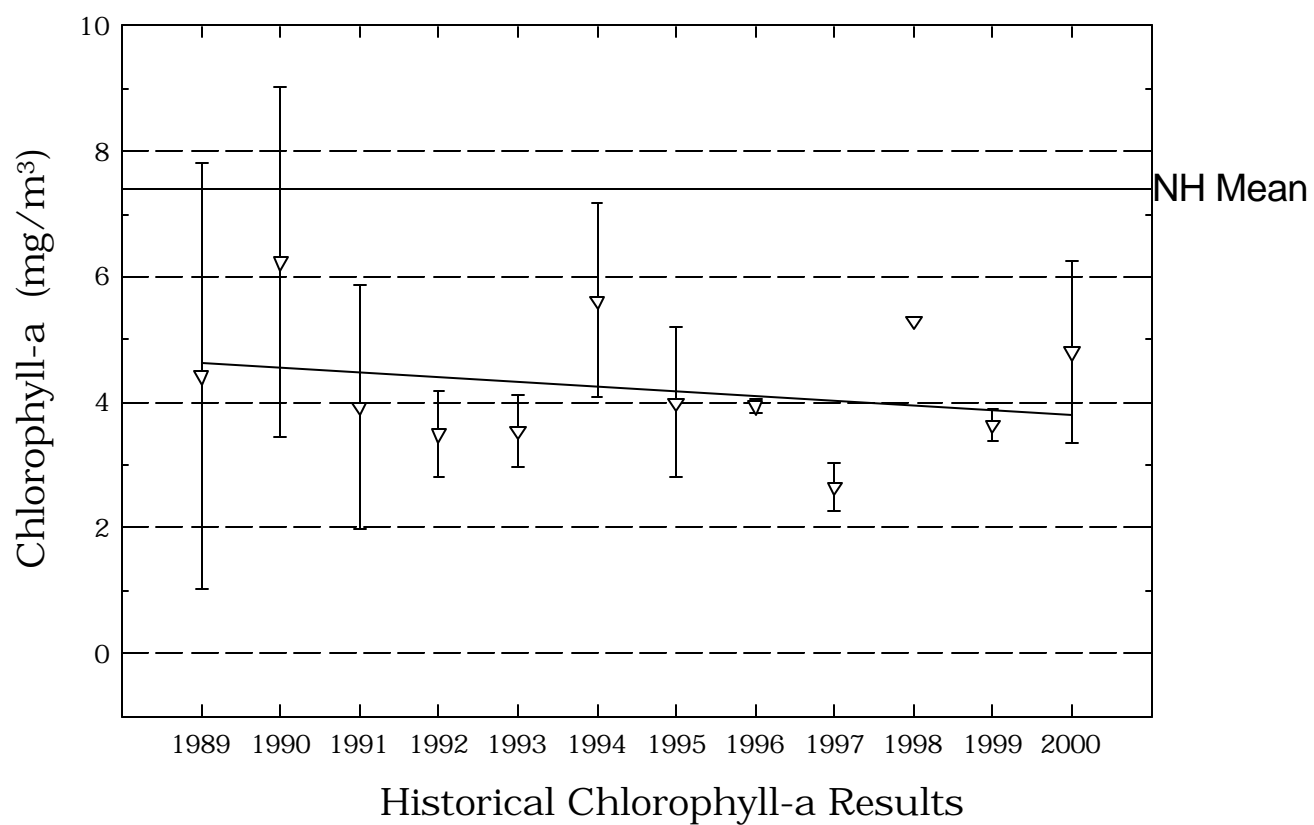
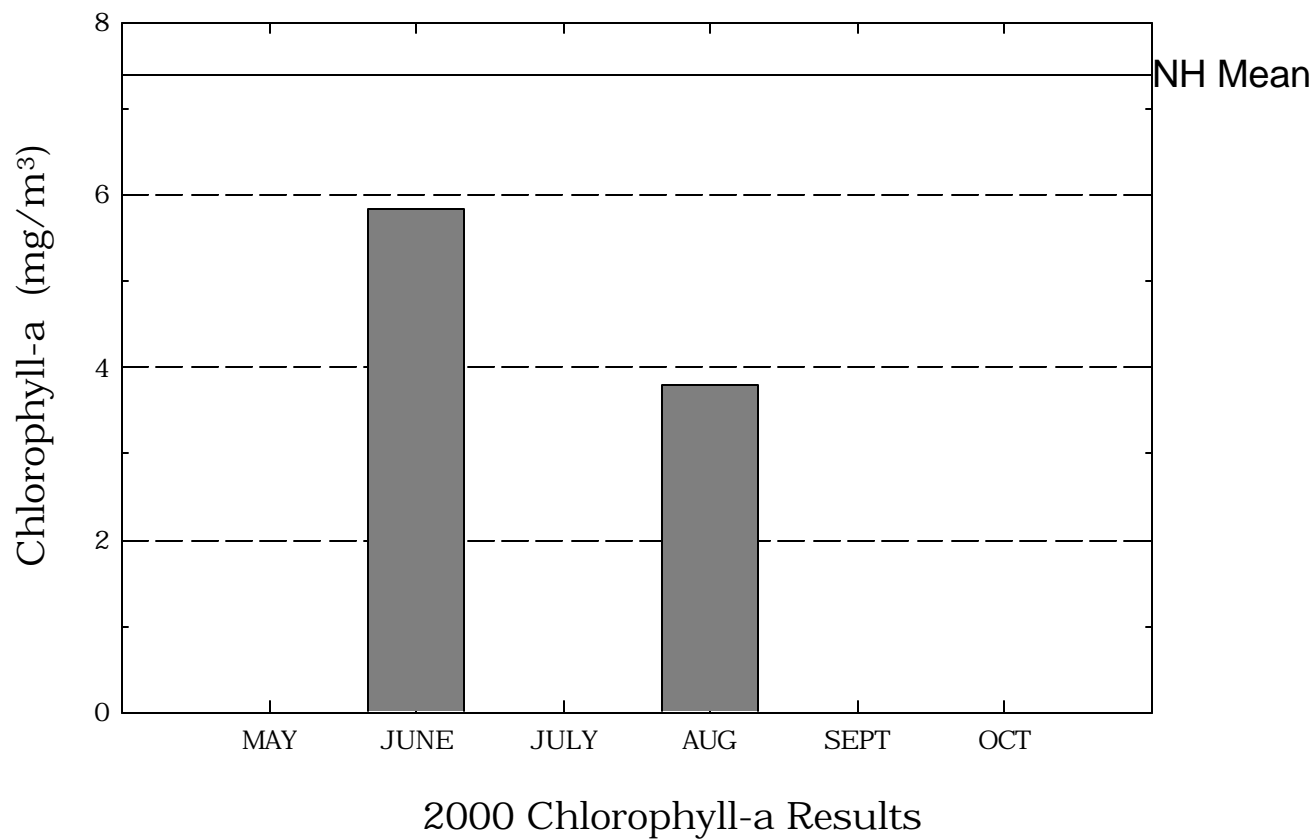
Lake Smarts: The First Lake Maintenance Handbook, A Do-It-Yourself Guide to Solving Lake Problems. The Terrene Institute. (800) 726-5253, or www.terrene.org.

Erosion Control for Construction in the Protected Shoreland Buffer Zone, WD-BB-30, NHDES Fact Sheet, (603) 271-3503 or www.state.nh.us

Anthropogenic Phosphorus and New Hampshire Waterbodies, NHDES-WSPCD-95-6, NHDES Booklet, (603) 271-3503

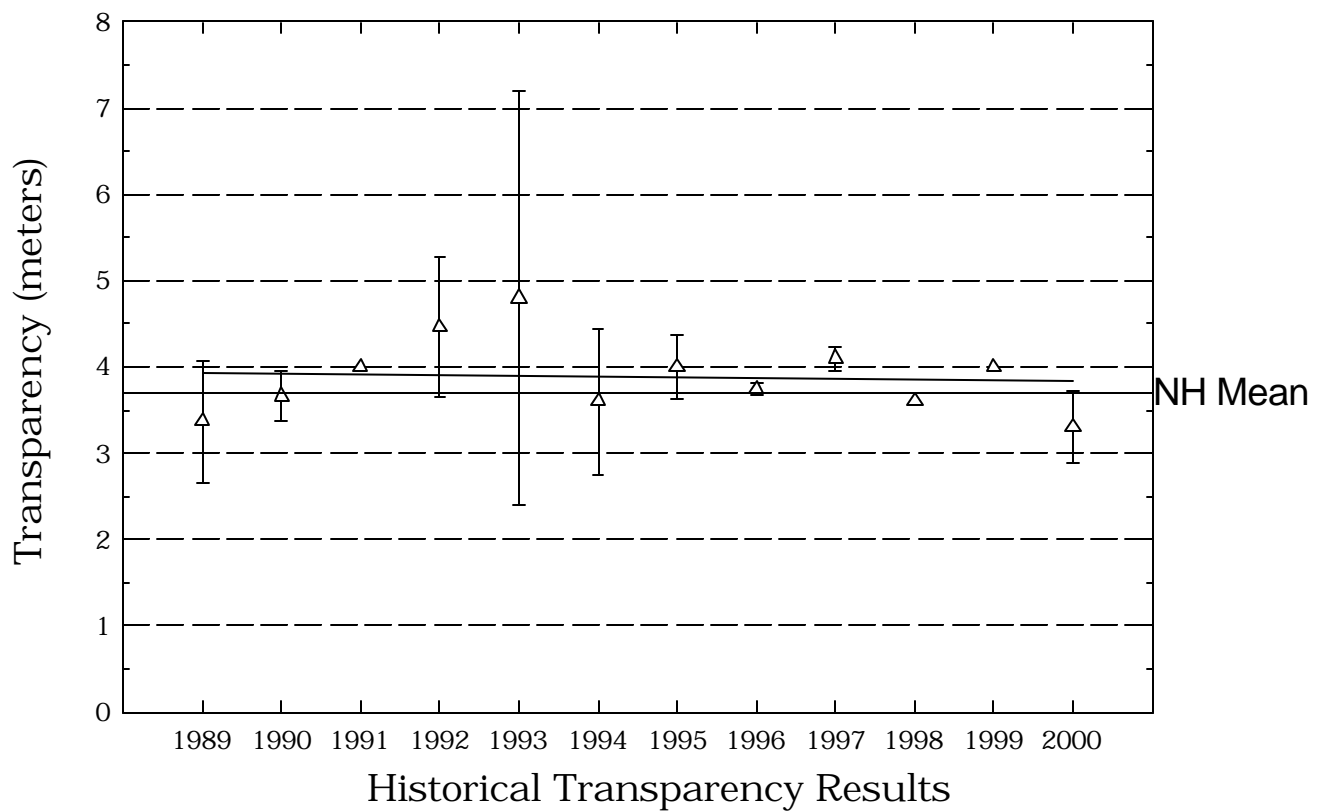
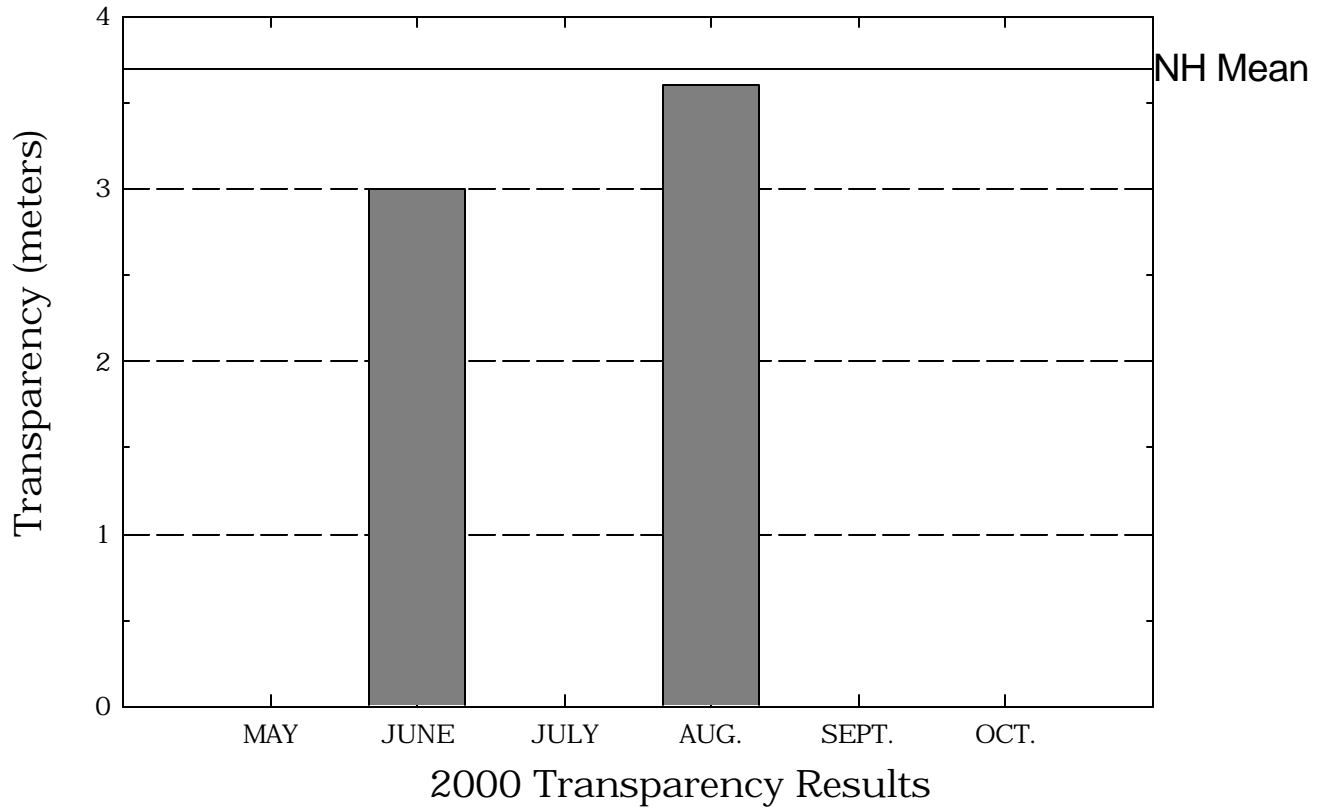
Halfmoon Lake

Figure 1. Monthly and Historical Chlorophyll-a Results



Halfmoon Lake

Figure 2. Monthly and Historical Transparency Results



Halfmoon Lake

Figure 3. Monthly and Historical Total Phosphorus Data.

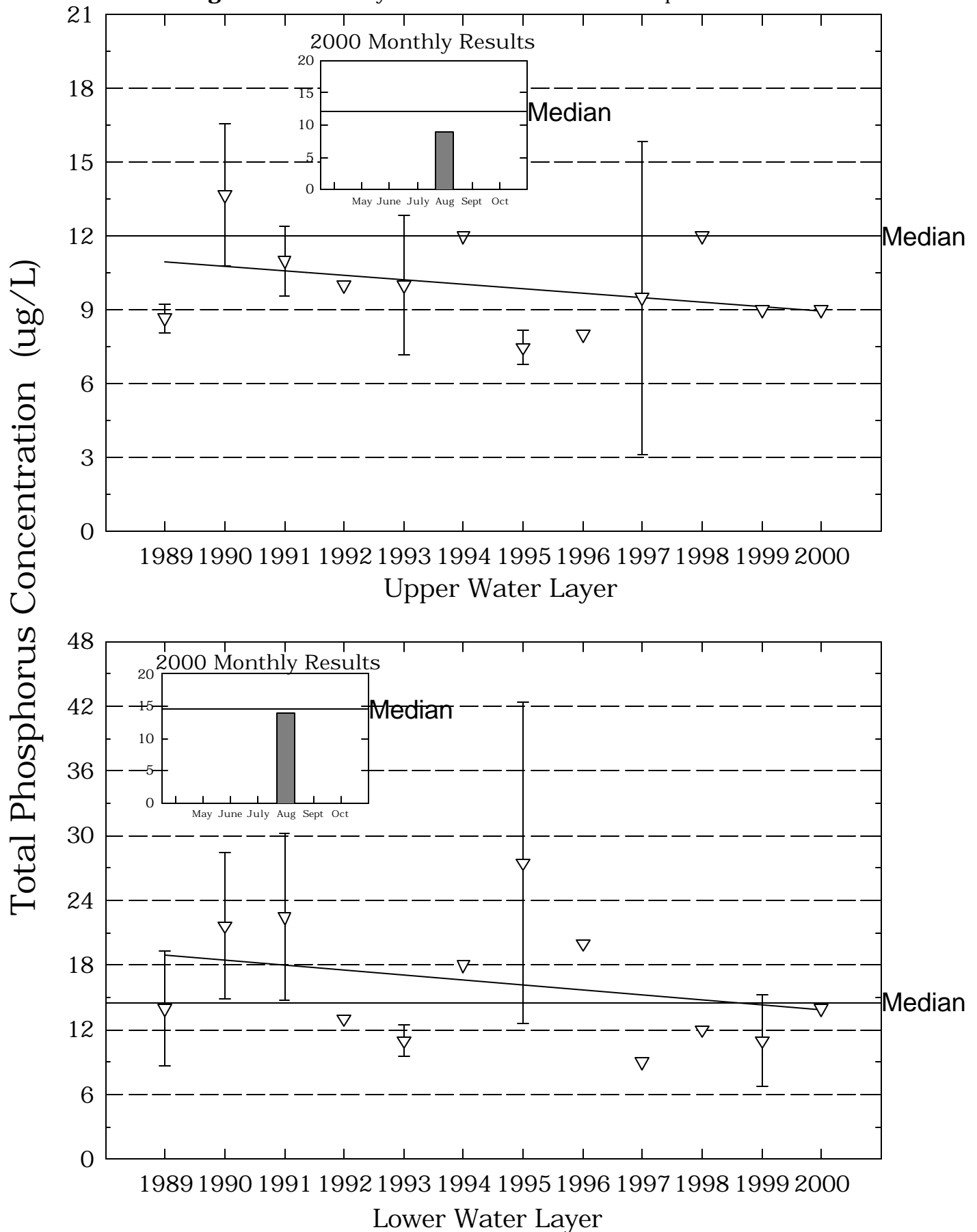


Table 1.**HALFMOON LAKE
BARNSTEAD****Chlorophyll-a results (mg/m³) for current year and historical
sampling periods.**

| Year | Minimum | Maximum | Mean |
|-------------|----------------|----------------|-------------|
| 1989 | 1.38 | 8.06 | 5.33 |
| 1990 | 4.34 | 9.44 | 6.69 |
| 1991 | 2.56 | 5.29 | 3.92 |
| 1992 | 2.85 | 4.36 | 3.71 |
| 1993 | 3.00 | 4.15 | 3.53 |
| 1994 | 4.53 | 6.71 | 5.62 |
| 1995 | 2.75 | 5.12 | 3.99 |
| 1996 | 3.86 | 4.03 | 3.94 |
| 1997 | 2.37 | 2.92 | 2.64 |
| 1998 | 5.29 | 5.29 | 5.29 |
| 1999 | 3.46 | 3.82 | 3.64 |
| 2000 | 3.79 | 5.83 | 4.81 |

Table 2.

**HALFMOON LAKE
BARNSTEAD**

Phytoplankton species and relative percent abundance.

Summary for current and historical sampling seasons.

| Date of Sample | Species Observed | Relative % Abundance |
|-----------------------|-------------------------|---------------------------------|
| 07/03/1989 | RIZOSOLENIA | 45 |
| | TABELLARIA | 45 |
| | ASTERIONELLA | |
| 07/16/1990 | ASTERIONELLA | 21 |
| | APHANOCAPSA | 21 |
| | CERATIUM | 20 |
| 07/02/1991 | ASTERIONELLA | 40 |
| | DINOBRYON | 25 |
| | CERATIUM | 6 |
| 07/13/1992 | CERATIUM | 55 |
| | CHRYSOPHAERELLA | 19 |
| | STAUSTRUM | 9 |
| 07/20/1992 | CHRYSOPHAERELLA | 37 |
| | CERATIUM | 33 |
| | ASTERIONELLA | 13 |
| 09/02/1993 | ANABAENA | 18 |
| | TABELLARIA | 14 |
| | ASTERIONELLA | 13 |
| 07/15/1994 | ASTERIONELLA | 53 |
| | TABELLARIA | 19 |
| | EUDORINA | 11 |
| 07/21/1995 | ASTERIONELLA | 27 |
| | TABELLARIA | 17 |
| | CERATIUM | 12 |
| 09/12/1996 | DINOBRYON | 31 |
| | ASTERIONELLA | 18 |
| | COELOSPHAERIUM | 14 |
| 09/08/1997 | CERATIUM | 22 |
| | DINOBRYON | 20 |
| | CHRYSOPHAERELLA | 17 |
| 07/31/1998 | ASTERIONELLA | 80 |
| | DINOBRYON | 8 |
| | MALLOMONAS | 5 |

Table 2.

**HALFMOON LAKE
BARNSTEAD**

**Phytoplankton species and relative percent abundance.
Summary for current and historical sampling seasons.**

| Date of Sample | Species Observed | Relative % Abundance |
|-----------------------|-------------------------|---------------------------------|
| 07/07/1999 | RHIZOLENIA | 48 |
| | STAUSTRUM | 13 |
| | TABELLARIA | 10 |
| 08/17/2000 | ASTERIONELLA | 27 |
| | RHIZOLENIA | 27 |
| | SPHAEROCYSTIS | 16 |

Table 3.**HALFMOON LAKE****BARNSTEAD**

**Summary of current and historical Secchi Disk
transparency results (in meters).**

| Year | Minimum | Maximum | Mean |
|-------------|----------------|----------------|-------------|
| 1989 | 2.6 | 4.0 | 3.3 |
| 1990 | 2.6 | 4.0 | 3.4 |
| 1991 | 4.0 | 4.0 | 4.0 |
| 1992 | 4.0 | 5.4 | 4.3 |
| 1993 | 3.1 | 6.5 | 4.8 |
| 1994 | 3.0 | 4.2 | 3.6 |
| 1995 | 3.6 | 4.3 | 4.0 |
| 1996 | 3.7 | 3.8 | 3.7 |
| 1997 | 4.0 | 4.2 | 4.1 |
| 1998 | 3.6 | 3.6 | 3.6 |
| 1999 | 4.0 | 4.0 | 4.0 |
| 2000 | 3.0 | 3.6 | 3.3 |

Table 4.

**HALFMOON LAKE
BARNSTEAD**

**pH summary for current and historical sampling seasons.
Values in units, listed by station and year.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| BOYS CAMP | 1992 | 6.73 | 6.73 | 6.73 |
| | 1993 | 6.90 | 6.90 | 6.90 |
| | 1994 | 6.45 | 6.96 | 6.63 |
| | 1995 | 6.74 | 6.77 | 6.75 |
| | 1996 | 6.26 | 6.43 | 6.34 |
| | 1997 | 6.50 | 6.64 | 6.56 |
| | 1998 | 6.35 | 6.75 | 6.51 |
| | 1999 | 6.44 | 6.65 | 6.53 |
| | 2000 | 6.62 | 6.71 | 6.66 |
| CRESCENT BEACH | 1992 | 6.41 | 6.41 | 6.41 |
| | 1993 | 6.81 | 6.81 | 6.81 |
| | 1994 | 6.25 | 7.13 | 6.50 |
| | 1995 | 6.76 | 6.76 | 6.76 |
| | 1996 | 6.38 | 6.43 | 6.40 |
| | 1997 | 6.44 | 6.70 | 6.55 |
| | 1998 | 6.46 | 6.73 | 6.57 |
| | 1999 | 6.63 | 6.69 | 6.66 |
| | 2000 | 6.39 | 6.59 | 6.48 |
| DALTON BEACH | 1992 | 6.60 | 6.60 | 6.60 |
| | 1993 | 6.89 | 6.89 | 6.89 |
| | 1994 | 6.44 | 6.83 | 6.59 |
| | 1995 | 6.66 | 6.72 | 6.69 |
| | 1996 | 6.34 | 6.45 | 6.39 |

Table 4.

**HALFMOON LAKE
BARNSTEAD**

**pH summary for current and historical sampling seasons.
Values in units, listed by station and year.**

| Station | Year | Minimum | Maximum | Mean |
|-------------------|-------------|----------------|----------------|-------------|
| | 1997 | 6.56 | 6.67 | 6.61 |
| | 1998 | 6.50 | 6.79 | 6.62 |
| | 1999 | 6.72 | 6.78 | 6.75 |
| | 2000 | 6.54 | 6.66 | 6.60 |
| DANIS BEACH | | | | |
| | 1997 | 6.64 | 6.72 | 6.68 |
| | 1999 | 6.82 | 6.82 | 6.82 |
| DAVIS CAMP | | | | |
| | 1995 | 6.74 | 6.74 | 6.74 |
| | 1996 | 6.50 | 6.50 | 6.50 |
| DUGAN'S INLET NEW | | | | |
| | 1992 | 6.26 | 6.26 | 6.26 |
| | | | | |
| | 1989 | 6.72 | 6.85 | 6.77 |
| | 1990 | 6.16 | 6.74 | 6.48 |
| | 1991 | 6.91 | 7.09 | 6.99 |
| | 1992 | 6.16 | 6.72 | 6.28 |
| | 1993 | 6.57 | 7.02 | 6.70 |
| | 1994 | 6.30 | 6.78 | 6.48 |
| | 1995 | 6.73 | 7.18 | 6.90 |
| | 1996 | 6.49 | 6.71 | 6.59 |
| | 1997 | 6.55 | 6.89 | 6.69 |
| | 1998 | 6.64 | 6.67 | 6.65 |
| | 1999 | 6.60 | 6.60 | 6.60 |
| | 2000 | 6.37 | 6.48 | 6.42 |

Table 4.

**HALFMOON LAKE
BARNSTEAD**

**pH summary for current and historical sampling seasons.
Values in units, listed by station and year.**

| Station | Year | Minimum | Maximum | Mean |
|-----------------|-------------|----------------|----------------|-------------|
| EPILIMNION | 1989 | 6.64 | 6.92 | 6.74 |
| | 1990 | 6.67 | 6.96 | 6.81 |
| | 1991 | 6.81 | 6.84 | 6.82 |
| | 1992 | 6.68 | 6.79 | 6.73 |
| | 1993 | 6.68 | 6.85 | 6.77 |
| | 1994 | 6.37 | 6.37 | 6.37 |
| | 1995 | 6.60 | 6.64 | 6.62 |
| | 1996 | 6.06 | 6.06 | 6.06 |
| | 1997 | 6.53 | 6.82 | 6.65 |
| | 1998 | 6.46 | 6.46 | 6.46 |
| | 1999 | 6.95 | 6.95 | 6.95 |
| | 2000 | 6.68 | 6.68 | 6.68 |
| FERN HILL INLET | 1989 | 6.40 | 6.71 | 6.54 |
| | 1990 | 6.40 | 6.72 | 6.51 |
| | 1991 | 6.58 | 6.75 | 6.66 |
| | 1992 | 6.35 | 6.62 | 6.43 |
| | 1993 | 6.50 | 6.64 | 6.57 |
| | 1994 | 6.54 | 6.64 | 6.59 |
| | 1995 | 6.48 | 6.95 | 6.71 |
| | 1996 | 6.53 | 6.74 | 6.62 |
| | 1997 | 6.62 | 6.62 | 6.62 |
| | 1998 | 6.29 | 6.51 | 6.39 |
| | 1999 | 6.51 | 6.59 | 6.55 |
| | 2000 | 6.22 | 6.29 | 6.25 |

Table 4.

**HALFMOON LAKE
BARNSTEAD**

**pH summary for current and historical sampling seasons.
Values in units, listed by station and year.**

| Station | Year | Minimum | Maximum | Mean |
|------------------|-------------|----------------|----------------|-------------|
| HOLLYWOOD BEACH | | | | |
| | 1999 | 6.69 | 6.73 | 6.71 |
| | 2000 | 6.62 | 6.62 | 6.62 |
| HORSE FARM INLET | | | | |
| | 1992 | 5.99 | 6.47 | 6.10 |
| | 1993 | 6.35 | 6.56 | 6.44 |
| | 1994 | 6.17 | 6.39 | 6.27 |
| | 1995 | 6.45 | 6.60 | 6.50 |
| | 1996 | 6.28 | 6.38 | 6.33 |
| | 1997 | 6.27 | 6.43 | 6.34 |
| | 1998 | 6.28 | 6.39 | 6.33 |
| | 1999 | 6.29 | 6.41 | 6.35 |
| | 2000 | 6.03 | 6.14 | 6.08 |
| HYPOLIMNION | | | | |
| | 1989 | 5.99 | 6.70 | 6.13 |
| | 1990 | 5.99 | 6.45 | 6.17 |
| | 1991 | 6.30 | 6.34 | 6.32 |
| | 1992 | 6.16 | 6.73 | 6.36 |
| | 1993 | 6.28 | 6.49 | 6.37 |
| | 1994 | 5.62 | 5.62 | 5.62 |
| | 1995 | 5.99 | 6.43 | 6.16 |
| | 1996 | 6.08 | 6.30 | 6.18 |
| | 1997 | 6.52 | 6.52 | 6.52 |
| | 1998 | 5.88 | 5.88 | 5.88 |
| | 1999 | 6.09 | 6.54 | 6.26 |
| | 2000 | 6.12 | 6.36 | 6.22 |

Table 4.

**HALFMOON LAKE
BARNSTEAD**

**pH summary for current and historical sampling seasons.
Values in units, listed by station and year.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| METALIMNION | 1990 | 6.51 | 6.93 | 6.67 |
| | 1991 | 6.40 | 6.40 | 6.40 |
| | 1992 | 6.51 | 6.51 | 6.51 |
| | 1994 | 5.74 | 5.74 | 5.74 |
| | 1995 | 6.11 | 6.71 | 6.31 |
| | 1997 | 6.76 | 6.76 | 6.76 |
| NEW INLET | 1995 | 6.45 | 6.45 | 6.45 |
| OUTLET | 1989 | 6.60 | 6.88 | 6.73 |
| | 1990 | 6.58 | 6.99 | 6.74 |
| | 1991 | 6.86 | 6.86 | 6.86 |
| | 1992 | 6.65 | 7.01 | 6.78 |
| | 1993 | 6.67 | 6.81 | 6.73 |
| | 1994 | 6.27 | 6.91 | 6.48 |
| | 1995 | 6.67 | 6.76 | 6.72 |
| | 1996 | 6.49 | 6.49 | 6.49 |
| | 1997 | 6.62 | 6.62 | 6.62 |
| | 1998 | 6.78 | 6.78 | 6.78 |
| | 1999 | 6.72 | 6.72 | 6.72 |
| | 2000 | 6.59 | 6.59 | 6.59 |
| PUBLIC BEACH | 1992 | 6.62 | 6.62 | 6.62 |
| | 1993 | 6.76 | 6.76 | 6.76 |

Table 4.

**HALFMOON LAKE
BARNSTEAD**

**pH summary for current and historical sampling seasons.
Values in units, listed by station and year.**

| Station | Year | Minimum | Maximum | Mean |
|--------------------|-------------|----------------|----------------|-------------|
| RT. 28 INLET | 1994 | 6.19 | 6.97 | 6.42 |
| | 1995 | 6.72 | 6.75 | 6.73 |
| | 1996 | 6.44 | 6.49 | 6.46 |
| | 1997 | 6.56 | 6.70 | 6.62 |
| | 1998 | 6.56 | 6.78 | 6.66 |
| | 1999 | 6.71 | 6.72 | 6.72 |
| | 2000 | 6.61 | 6.64 | 6.62 |
| RUSTIC COVE KENNEL | 1989 | 6.15 | 6.38 | 6.27 |
| | 1990 | 6.15 | 6.41 | 6.29 |
| | 1991 | 6.51 | 7.06 | 6.70 |
| | 1992 | 6.30 | 6.57 | 6.40 |
| | 1993 | 6.30 | 6.56 | 6.45 |
| | 1994 | 6.45 | 6.45 | 6.45 |
| | 1995 | 6.29 | 6.29 | 6.29 |
| | 1996 | 6.13 | 6.13 | 6.13 |
| | 1997 | 6.31 | 6.40 | 6.35 |
| | 1998 | 6.41 | 6.63 | 6.51 |
| | 1999 | 6.43 | 6.47 | 6.45 |
| | 2000 | 6.38 | 6.51 | 6.44 |
| RUSTIC SHORES | 1996 | 6.45 | 6.45 | 6.45 |
| | 1993 | 6.78 | 6.78 | 6.78 |
| | 1994 | 6.61 | 6.79 | 6.69 |
| | 1995 | 6.76 | 6.76 | 6.76 |

Table 4.

**HALFMOON LAKE
BARNSTEAD**

**pH summary for current and historical sampling seasons.
Values in units, listed by station and year.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| | 1996 | 6.42 | 6.45 | 6.43 |
| | 1997 | 6.54 | 6.56 | 6.55 |
| | 1998 | 6.61 | 6.86 | 6.72 |
| | 1999 | 6.71 | 6.75 | 6.73 |
| | 2000 | 6.62 | 6.65 | 6.63 |

Table 5.**HALFMOON LAKE****BARNSTEAD****Summary of current and historical Acid Neutralizing Capacity.****Values expressed in mg/L as CaCO₃.****Epilimnetic Values**

| Year | Minimum | Maximum | Mean |
|-------------|----------------|----------------|-------------|
| 1989 | 3.40 | 4.30 | 3.83 |
| 1990 | 3.60 | 3.90 | 3.70 |
| 1991 | 4.20 | 4.20 | 4.20 |
| 1992 | 4.60 | 4.70 | 4.65 |
| 1993 | 4.70 | 5.30 | 4.97 |
| 1994 | 3.90 | 3.90 | 3.90 |
| 1995 | 3.00 | 4.50 | 3.75 |
| 1996 | 3.70 | 3.70 | 3.70 |
| 1997 | 3.40 | 4.20 | 3.80 |
| 1998 | 3.40 | 3.40 | 3.40 |
| 1999 | 3.90 | 3.90 | 3.90 |
| 2000 | 4.10 | 4.10 | 4.10 |

Table 6.**HALFMOON LAKE****BARNSTEAD**

**Specific conductance results from current and historic
sampling seasons. Results in uMhos/cm.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| BOYS CAMP | 1992 | 43.8 | 43.8 | 43.8 |
| | 1993 | 42.4 | 42.4 | 42.4 |
| | 1994 | 43.9 | 44.9 | 44.4 |
| | 1995 | 45.0 | 47.3 | 46.1 |
| | 1996 | 43.3 | 46.2 | 44.7 |
| | 1997 | 39.0 | 42.2 | 40.6 |
| | 1998 | 38.9 | 44.6 | 41.7 |
| | 1999 | 51.0 | 51.1 | 51.0 |
| | 2000 | 48.2 | 49.3 | 48.7 |
| CRESCENT BEACH | 1992 | 42.4 | 42.4 | 42.4 |
| | 1993 | 42.9 | 42.9 | 42.9 |
| | 1994 | 44.0 | 44.6 | 44.3 |
| | 1995 | 45.1 | 47.0 | 46.0 |
| | 1996 | 43.5 | 46.5 | 45.0 |
| | 1997 | 38.9 | 41.9 | 40.4 |
| | 1998 | 39.2 | 48.9 | 44.1 |
| | 1999 | 50.3 | 51.5 | 50.9 |
| | 2000 | 49.1 | 49.9 | 49.5 |
| DALTON BEACH | 1992 | 43.4 | 43.4 | 43.4 |
| | 1993 | 43.2 | 43.2 | 43.2 |
| | 1994 | 43.9 | 45.1 | 44.5 |
| | 1995 | 45.0 | 47.8 | 46.4 |
| | 1996 | 43.3 | 45.3 | 44.3 |

Table 6.

**HALFMOON LAKE
BARNSTEAD**

**Specific conductance results from current and historic
sampling seasons. Results in uMhos/cm.**

| Station | Year | Minimum | Maximum | Mean |
|-------------------|-------------|----------------|----------------|-------------|
| | 1997 | 38.8 | 42.4 | 40.6 |
| | 1998 | 39.9 | 44.1 | 42.0 |
| | 1999 | 49.8 | 50.9 | 50.3 |
| | 2000 | 48.1 | 49.5 | 48.8 |
| DANIS BEACH | | | | |
| | 1997 | 39.3 | 42.3 | 40.8 |
| | 1999 | 50.3 | 50.3 | 50.3 |
| DAVIS CAMP | | | | |
| | 1995 | 48.8 | 48.8 | 48.8 |
| | 1996 | 43.1 | 43.1 | 43.1 |
| DUGAN'S INLET NEW | | | | |
| | 1992 | 49.0 | 49.0 | 49.0 |
| DUGAN'S INLET | | | | |
| | 1989 | 48.6 | 58.1 | 54.0 |
| | 1990 | 46.4 | 50.0 | 48.1 |
| | 1991 | 59.7 | 61.8 | 60.7 |
| | 1992 | 48.1 | 58.2 | 52.5 |
| | 1993 | 73.2 | 101.6 | 90.6 |
| | 1994 | 67.2 | 87.8 | 77.5 |
| | 1995 | 65.2 | 85.5 | 78.2 |
| | 1996 | 59.1 | 80.0 | 69.5 |
| | 1997 | 57.4 | 73.3 | 65.3 |
| | 1998 | 74.3 | 79.3 | 76.8 |
| | 1999 | 87.9 | 87.9 | 87.9 |
| | 2000 | 58.9 | 65.8 | 62.4 |

Table 6.**HALFMOON LAKE****BARNSTEAD**

**Specific conductance results from current and historic
sampling seasons. Results in uMhos/cm.**

| Station | Year | Minimum | Maximum | Mean |
|-----------------|-------------|----------------|----------------|-------------|
| EPILIMNION | 1989 | 36.1 | 37.7 | 36.9 |
| | 1990 | 36.1 | 37.7 | 36.9 |
| | 1991 | 37.8 | 38.2 | 38.0 |
| | 1992 | 42.7 | 42.8 | 42.7 |
| | 1993 | 44.9 | 45.2 | 45.0 |
| | 1994 | 43.8 | 43.8 | 43.8 |
| | 1995 | 46.1 | 46.7 | 46.4 |
| | 1996 | 45.7 | 45.7 | 45.7 |
| | 1997 | 39.2 | 42.4 | 40.8 |
| | 1998 | 39.5 | 39.5 | 39.5 |
| | 1999 | 50.9 | 50.9 | 50.9 |
| | 2000 | 49.5 | 49.5 | 49.5 |
| FERN HILL INLET | 1989 | 32.0 | 37.4 | 35.4 |
| | 1990 | 32.0 | 37.0 | 34.6 |
| | 1991 | 23.7 | 35.4 | 29.5 |
| | 1992 | 33.1 | 40.4 | 36.2 |
| | 1993 | 32.4 | 43.7 | 39.2 |
| | 1994 | 21.5 | 44.0 | 32.7 |
| | 1995 | 44.7 | 46.8 | 45.6 |
| | 1996 | 42.6 | 43.9 | 43.2 |
| | 1997 | 38.5 | 41.3 | 39.9 |
| | 1998 | 24.6 | 40.0 | 32.3 |
| | 1999 | 27.5 | 43.6 | 35.5 |
| | 2000 | 25.4 | 26.8 | 26.1 |

Table 6.

**HALFMOON LAKE
BARNSTEAD**

**Specific conductance results from current and historic
sampling seasons. Results in uMhos/cm.**

| Station | Year | Minimum | Maximum | Mean |
|------------------|-------------|----------------|----------------|-------------|
| HOLLYWOOD BEACH | 1999 | 50.7 | 51.0 | 50.8 |
| | 2000 | 48.0 | 48.0 | 48.0 |
| HORSE FARM INLET | 1992 | 50.1 | 54.6 | 52.4 |
| | 1993 | 67.7 | 124.2 | 99.5 |
| | 1994 | 63.9 | 90.6 | 77.2 |
| | 1995 | 62.8 | 117.1 | 88.0 |
| | 1996 | 57.5 | 72.7 | 65.1 |
| | 1997 | 54.4 | 67.7 | 61.0 |
| | 1998 | 71.3 | 81.2 | 76.2 |
| | 1999 | 88.4 | 97.9 | 93.1 |
| | 2000 | 57.8 | 62.0 | 59.9 |
| HYPOLIMNION | 1989 | 37.2 | 39.5 | 38.2 |
| | 1990 | 37.2 | 44.0 | 40.4 |
| | 1991 | 39.4 | 44.5 | 41.9 |
| | 1992 | 43.7 | 47.3 | 45.5 |
| | 1993 | 45.6 | 47.1 | 46.3 |
| | 1994 | 45.6 | 45.6 | 45.6 |
| | 1995 | 49.9 | 56.7 | 53.3 |
| | 1996 | 59.9 | 60.8 | 60.3 |
| | 1997 | 43.6 | 43.6 | 43.6 |
| | 1998 | 41.1 | 41.1 | 41.1 |
| | 1999 | 49.9 | 50.6 | 50.2 |
| | 2000 | 49.5 | 52.8 | 51.1 |

Table 6.

**HALFMOON LAKE
BARNSTEAD**

**Specific conductance results from current and historic
sampling seasons. Results in uMhos/cm.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| METALIMNION | 1990 | 37.5 | 37.7 | 37.6 |
| | 1991 | 37.7 | 37.7 | 37.7 |
| | 1992 | 43.2 | 43.2 | 43.2 |
| | 1994 | 44.0 | 44.0 | 44.0 |
| | 1995 | 46.2 | 46.7 | 46.4 |
| | 1997 | 42.1 | 42.1 | 42.1 |
| NEW INLET | 1995 | 69.4 | 69.4 | 69.4 |
| OUTLET | 1989 | 36.9 | 37.6 | 37.1 |
| | 1990 | 36.9 | 37.8 | 37.4 |
| | 1991 | 37.7 | 37.7 | 37.7 |
| | 1992 | 43.4 | 44.6 | 44.1 |
| | 1993 | 42.9 | 44.2 | 43.5 |
| | 1994 | 44.9 | 45.5 | 45.2 |
| | 1995 | 45.8 | 47.1 | 46.6 |
| | 1996 | 43.3 | 46.5 | 44.9 |
| | 1997 | 39.0 | 39.0 | 39.0 |
| | 1998 | 44.9 | 44.9 | 44.9 |
| | 1999 | 50.8 | 50.8 | 50.8 |
| | 2000 | 49.2 | 49.2 | 49.2 |
| PUBLIC BEACH | 1992 | 43.4 | 43.4 | 43.4 |
| | 1993 | 43.4 | 43.4 | 43.4 |
| | 1994 | 44.0 | 44.8 | 44.4 |

Table 6.

**HALFMOON LAKE
BARNSTEAD**

**Specific conductance results from current and historic
sampling seasons. Results in uMhos/cm.**

| Station | Year | Minimum | Maximum | Mean |
|--------------------|-------------|----------------|----------------|-------------|
| RT. 28 INLET | 1995 | 44.7 | 47.5 | 46.1 |
| | 1996 | 43.5 | 46.2 | 44.8 |
| | 1997 | 38.0 | 42.1 | 40.0 |
| | 1998 | 39.9 | 44.6 | 42.2 |
| | 1999 | 49.6 | 52.3 | 50.9 |
| | 2000 | 48.2 | 50.3 | 49.3 |
| RT. 28 INLET | 1989 | 47.2 | 66.9 | 59.0 |
| | 1990 | 42.0 | 60.6 | 51.1 |
| | 1991 | 68.4 | 81.2 | 74.8 |
| | 1992 | 36.7 | 74.3 | 54.2 |
| | 1993 | 70.6 | 81.3 | 76.1 |
| | 1994 | 59.3 | 59.3 | 59.3 |
| | 1995 | 69.8 | 69.8 | 69.8 |
| | 1996 | 54.2 | 54.2 | 54.2 |
| | 1997 | 43.3 | 89.0 | 66.1 |
| | 1998 | 56.4 | 78.3 | 67.3 |
| | 1999 | 87.1 | 98.0 | 92.5 |
| | 2000 | 45.4 | 53.0 | 49.2 |
| RUSTIC COVE KENNEL | 1996 | 43.2 | 43.2 | 43.2 |
| | | | | |
| RUSTIC SHORES | 1993 | 42.6 | 42.6 | 42.6 |
| | 1994 | 43.9 | 45.4 | 44.6 |
| | 1995 | 45.9 | 45.9 | 45.9 |
| | 1996 | 43.3 | 46.0 | 44.6 |

Table 6.

**HALFMOON LAKE
BARNSTEAD**

**Specific conductance results from current and historic
sampling seasons. Results in uMhos/cm.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| | 1997 | 38.8 | 42.6 | 40.7 |
| | 1998 | 39.6 | 43.8 | 41.7 |
| | 1999 | 50.6 | 50.6 | 50.6 |
| | 2000 | 48.1 | 49.2 | 48.7 |

Table 8.

**HALFMOON LAKE
BARNSTEAD**

**Summary historical and current sampling season Total
Phosphorus data. Results in ug/L.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| BOYS CAMP | 1992 | 10 | 10 | 10 |
| | 1993 | 10 | 10 | 10 |
| | 1994 | 9 | 11 | 10 |
| | 1995 | 6 | 8 | 7 |
| | 1996 | 8 | 9 | 8 |
| | 1997 | 5 | 7 | 6 |
| | 1998 | 5 | 6 | 5 |
| | 1999 | 8 | 9 | 8 |
| | 2000 | 9 | 11 | 10 |
| CRESCENT BEACH | 1992 | 9 | 9 | 9 |
| | 1993 | 9 | 9 | 9 |
| | 1994 | 8 | 8 | 8 |
| | 1995 | 8 | 9 | 8 |
| | 1996 | 9 | 9 | 9 |
| | 1997 | 6 | 11 | 8 |
| | 1998 | 8 | 9 | 8 |
| | 1999 | 8 | 9 | 8 |
| | 2000 | 9 | 13 | 11 |
| DALTON BEACH | 1992 | 10 | 10 | 10 |
| | 1993 | 8 | 8 | 8 |
| | 1994 | 15 | 17 | 16 |
| | 1995 | 6 | 7 | 6 |
| | 1996 | 8 | 8 | 8 |

Table 8.**HALFMOON LAKE****BARNSTEAD**

**Summary historical and current sampling season Total
Phosphorus data. Results in ug/L.**

| Station | Year | Minimum | Maximum | Mean |
|-------------------|-------------|----------------|----------------|-------------|
| | 1997 | 6 | 8 | 7 |
| | 1998 | 7 | 7 | 7 |
| | 1999 | 9 | 10 | 9 |
| | 2000 | 8 | 9 | 8 |
| DANIS BEACH | | | | |
| | 1997 | 7 | 7 | 7 |
| | 1999 | 10 | 10 | 10 |
| DAVIS CAMP | | | | |
| | 1995 | 5 | 5 | 5 |
| | 1996 | 8 | 8 | 8 |
| DUGAN'S INLET NEW | | | | |
| | 1992 | 24 | 24 | 24 |
| DUGAN'S INLET | | | | |
| | 1989 | 9 | 40 | 26 |
| | 1990 | 25 | 69 | 45 |
| | 1991 | 30 | 31 | 30 |
| | 1992 | 19 | 29 | 25 |
| | 1993 | 30 | 40 | 35 |
| | 1994 | 28 | 29 | 28 |
| | 1995 | 25 | 30 | 28 |
| | 1996 | 24 | 38 | 31 |
| | 1997 | 18 | 23 | 20 |
| | 1998 | 17 | 28 | 22 |
| | 1999 | 41 | 41 | 41 |
| | 2000 | 18 | 31 | 24 |

Table 8.**HALFMOON LAKE****BARNSTEAD**

**Summary historical and current sampling season Total
Phosphorus data. Results in ug/L.**

| Station | Year | Minimum | Maximum | Mean |
|-----------------|-------------|----------------|----------------|-------------|
| EPILIMNION | 1989 | 8 | 9 | 8 |
| | 1990 | 9 | 17 | 12 |
| | 1991 | 10 | 12 | 11 |
| | 1992 | 10 | 14 | 12 |
| | 1993 | 8 | 12 | 10 |
| | 1994 | 12 | 12 | 12 |
| | 1995 | 7 | 8 | 7 |
| | 1996 | 8 | 8 | 8 |
| | 1997 | 5 | 14 | 9 |
| | 1998 | 12 | 12 | 12 |
| | 1999 | 9 | 9 | 9 |
| | 2000 | 9 | 9 | 9 |
| FERN HILL INLET | 1989 | 8 | 23 | 16 |
| | 1990 | 21 | 26 | 23 |
| | 1991 | 16 | 63 | 39 |
| | 1992 | 11 | 24 | 17 |
| | 1993 | 11 | 43 | 25 |
| | 1994 | 16 | 58 | 37 |
| | 1995 | 8 | 15 | 10 |
| | 1996 | 8 | 8 | 8 |
| | 1997 | 4 | 6 | 5 |
| | 1998 | 8 | 8 | 8 |
| | 1999 | 27 | 36 | 31 |
| | 2000 | 10 | 18 | 14 |

Table 8.**HALFMOON LAKE****BARNSTEAD**

**Summary historical and current sampling season Total
Phosphorus data. Results in ug/L.**

| Station | Year | Minimum | Maximum | Mean |
|------------------|-------------|----------------|----------------|-------------|
| HOLLYWOOD BEACH | | | | |
| | 1999 | 8 | 8 | 8 |
| | 2000 | 13 | 13 | 13 |
| HORSE FARM INLET | | | | |
| | 1992 | 17 | 28 | 23 |
| | 1993 | 28 | 43 | 33 |
| | 1994 | 28 | 38 | 33 |
| | 1995 | 26 | 104 | 52 |
| | 1996 | 25 | 31 | 28 |
| | 1997 | 17 | 25 | 21 |
| | 1998 | 29 | 48 | 38 |
| | 1999 | 34 | 37 | 35 |
| | 2000 | 19 | 42 | 30 |
| HYPOLIMNION | | | | |
| | 1989 | 8 | 18 | 14 |
| | 1990 | 8 | 27 | 18 |
| | 1991 | 17 | 28 | 22 |
| | 1992 | 13 | 18 | 15 |
| | 1993 | 10 | 12 | 11 |
| | 1994 | 18 | 18 | 18 |
| | 1995 | 17 | 38 | 27 |
| | 1996 | 20 | 20 | 20 |
| | 1997 | 9 | 9 | 9 |
| | 1998 | 12 | 12 | 12 |
| | 1999 | 8 | 14 | 11 |
| | 2000 | 0 | 14 | 7 |

Table 8.**HALFMOON LAKE****BARNSTEAD**

**Summary historical and current sampling season Total
Phosphorus data. Results in ug/L.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| METALIMNION | 1990 | 14 | 17 | 15 |
| | 1991 | 17 | 17 | 17 |
| | 1992 | 11 | 11 | 11 |
| | 1994 | 19 | 19 | 19 |
| | 1995 | 8 | 14 | 11 |
| | 1997 | 7 | 7 | 7 |
| NEW INLET | 1995 | 7 | 55 | 31 |
| | | | | |
| OUTLET | 1989 | 8 | 60 | 26 |
| | 1990 | 8 | 13 | 10 |
| | 1991 | 12 | 12 | 12 |
| | 1992 | 10 | 12 | 11 |
| | 1993 | 13 | 18 | 15 |
| | 1994 | 5 | 18 | 11 |
| | 1995 | 6 | 25 | 13 |
| | 1996 | 7 | 9 | 8 |
| | 1997 | 9 | 9 | 9 |
| | 1998 | 7 | 7 | 7 |
| | 1999 | 9 | 9 | 9 |
| | 2000 | 11 | 11 | 11 |
| PUBLIC BEACH | 1992 | 10 | 10 | 10 |
| | 1993 | 7 | 7 | 7 |
| | 1994 | 9 | 9 | 9 |
| | | | | |

Table 8.**HALFMOON LAKE****BARNSTEAD**

**Summary historical and current sampling season Total
Phosphorus data. Results in ug/L.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| | 1995 | 7 | 8 | 7 |
| | 1996 | 8 | 13 | 10 |
| | 1997 | 5 | 8 | 6 |
| | 1998 | 8 | 17 | 12 |
| | 1999 | 9 | 10 | 9 |
| | 2000 | 8 | 10 | 9 |
| RT. 28 INLET | | | | |
| | 1989 | 38 | 73 | 55 |
| | 1990 | 31 | 105 | 66 |
| | 1991 | 57 | 62 | 59 |
| | 1992 | 25 | 44 | 32 |
| | 1993 | 41 | 80 | 58 |
| | 1994 | 44 | 44 | 44 |
| | 1995 | 53 | 53 | 53 |
| | 1996 | 59 | 59 | 59 |
| | 1997 | 49 | 62 | 55 |
| | 1998 | 29 | 66 | 47 |
| | 1999 | 74 | 90 | 82 |
| | 2000 | 19 | 44 | 31 |
| RUSTIC SHORES | | | | |
| | 1993 | 8 | 8 | 8 |
| | 1994 | 8 | 10 | 9 |
| | 1995 | 8 | 8 | 8 |
| | 1996 | 3 | 7 | 5 |
| | 1997 | 7 | 10 | 8 |
| | 1998 | 6 | 8 | 7 |

Table 8.

**HALFMOON LAKE
BARNSTEAD**

**Summary historical and current sampling season Total
Phosphorus data. Results in ug/L.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| | 1999 | 9 | 10 | 9 |
| | 2000 | 11 | 12 | 11 |

Table 9.
HALFMOON LAKE
BARNSTEAD

Current year dissolved oxygen and temperature data.

| Depth (meters) | Temperature (celsius) | Dissolved Oxygen (mg/L) | Saturation (%) |
|--------------------------|---------------------------------|-----------------------------------|--------------------------|
| August 17, 2000 | | | |
| 0.1 | 22.3 | 7.1 | 81.5 |
| 1.0 | 22.3 | 7.0 | 80.8 |
| 2.0 | 22.3 | 7.0 | 80.3 |
| 3.0 | 22.2 | 7.0 | 80.1 |
| 4.0 | 22.2 | 6.9 | 79.1 |
| 5.0 | 22.1 | 6.7 | 77.0 |
| 6.0 | 19.4 | 1.4 | 15.2 |
| 7.0 | 15.4 | 1.9 | 19.1 |
| 8.0 | 14.0 | 0.5 | 4.4 |

Table 10.

**HALFMOON LAKE
BARNSTEAD**

Historic Hypolimnetic dissolved oxygen and temperature data.

| Date | Depth (meters) | Temperature (celsius) | Dissolved Oxygen (mg/L) | Saturation (%) |
|--------------------|--------------------------|---------------------------------|-----------------------------------|--------------------------|
| July 3, 1989 | 9.0 | 10.5 | 1.6 | 14.0 |
| July 16, 1990 | 9.0 | 12.1 | 0.8 | 7.4 |
| July 2, 1991 | 8.5 | 12.7 | 0.0 | 0.0 |
| July 13, 1992 | 8.0 | 10.5 | 0.2 | 1.8 |
| July 20, 1992 | 8.0 | 12.0 | 0.3 | 3.0 |
| September 2, 1993 | 8.0 | 14.7 | 0.0 | 0.0 |
| July 15, 1994 | 8.0 | 13.5 | 0.2 | 2.0 |
| July 21, 1995 | 8.5 | 11.5 | 0.4 | 4.0 |
| September 12, 1996 | 8.5 | 14.6 | 0.2 | 2.0 |
| September 8, 1997 | 8.0 | 16.2 | 3.0 | 30.0 |
| July 31, 1998 | 7.0 | 14.9 | 0.2 | 2.0 |
| July 7, 1999 | 8.0 | 13.3 | 0.6 | 6.2 |
| August 17, 2000 | 8.0 | 14.0 | 0.5 | 4.4 |

Table 11.

**HALFMOON LAKE
BARNSTEAD**

**Summary of current year and historic turbidity sampling.
Results in NTU's.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| BOYS CAMP | 1997 | 0.3 | 0.5 | 0.4 |
| | 1998 | 0.3 | 0.3 | 0.3 |
| | 1999 | 0.5 | 1.1 | 0.8 |
| | 2000 | 0.4 | 0.4 | 0.4 |
| CRESCENT BEACH | 1997 | 0.4 | 0.4 | 0.4 |
| | 1998 | 0.3 | 0.6 | 0.4 |
| | 1999 | 0.6 | 0.6 | 0.6 |
| | 2000 | 0.5 | 0.5 | 0.5 |
| DALTON BEACH | 1997 | 0.3 | 0.5 | 0.4 |
| | 1998 | 0.2 | 0.4 | 0.3 |
| | 1999 | 0.4 | 0.6 | 0.5 |
| | 2000 | 0.3 | 0.4 | 0.4 |
| DANIS BEACH | 1997 | 0.3 | 0.5 | 0.4 |
| | 1999 | 0.4 | 0.4 | 0.4 |
| DUGAN'S INLET | 1993 | 0.0 | 0.0 | 0.0 |
| | 1997 | 1.6 | 1.8 | 1.7 |
| | 1998 | 1.3 | 4.0 | 2.6 |
| | 1999 | 5.7 | 5.7 | 5.7 |
| | 2000 | 1.2 | 1.9 | 1.5 |
| EPILIMNION | 1993 | 0.0 | 0.0 | 0.0 |

Table 11.

**HALFMOON LAKE
BARNSTEAD**

**Summary of current year and historic turbidity sampling.
Results in NTU's.**

| Station | Year | Minimum | Maximum | Mean |
|------------------|-------------|----------------|----------------|-------------|
| | 1997 | 0.5 | 0.5 | 0.5 |
| | 1998 | 0.3 | 0.3 | 0.3 |
| | 1999 | 0.4 | 0.4 | 0.4 |
| | 2000 | 0.3 | 0.3 | 0.3 |
| FERN HILL INLET | | | | |
| | 1993 | 0.0 | 0.0 | 0.0 |
| | 1997 | 0.4 | 0.5 | 0.4 |
| | 1998 | 0.3 | 0.4 | 0.3 |
| | 1999 | 1.5 | 2.5 | 2.0 |
| | 2000 | 0.5 | 0.7 | 0.6 |
| HOLLYWOOD BEACH | | | | |
| | 1999 | 0.5 | 0.8 | 0.6 |
| | 2000 | 0.5 | 0.5 | 0.5 |
| HORSE FARM INLET | | | | |
| | 1993 | 0.0 | 0.0 | 0.0 |
| | 1997 | 2.2 | 2.4 | 2.3 |
| | 1998 | 4.7 | 5.3 | 5.0 |
| | 1999 | 3.0 | 10.4 | 6.7 |
| | 2000 | 1.4 | 4.4 | 2.9 |
| HYPOLIMNION | | | | |
| | 1993 | 0.0 | 0.0 | 0.0 |
| | 1997 | 2.7 | 2.7 | 2.7 |
| | 1998 | 1.3 | 1.3 | 1.3 |
| | 1999 | 0.6 | 1.0 | 0.8 |
| | 2000 | 0.8 | 2.4 | 1.6 |
| METALIMNION | | | | |
| | 1997 | 0.5 | 0.5 | 0.5 |

Table 11.

**HALFMOON LAKE
BARNSTEAD**

**Summary of current year and historic turbidity sampling.
Results in NTU's.**

| Station | Year | Minimum | Maximum | Mean |
|----------------|-------------|----------------|----------------|-------------|
| OUTLET | 1997 | 0.4 | 0.4 | 0.4 |
| | 1998 | 0.5 | 0.5 | 0.5 |
| | 1999 | 1.0 | 1.0 | 1.0 |
| | 2000 | 0.9 | 0.9 | 0.9 |
| PUBLIC BEACH | 1997 | 0.3 | 0.5 | 0.4 |
| | 1998 | 0.3 | 0.4 | 0.3 |
| | 1999 | 0.6 | 0.6 | 0.6 |
| | 2000 | 0.3 | 0.6 | 0.4 |
| RT. 28 INLET | 1993 | 0.0 | 0.0 | 0.0 |
| | 1997 | 2.1 | 2.3 | 2.2 |
| | 1998 | 1.8 | 4.0 | 2.9 |
| | 1999 | 3.8 | 5.1 | 4.4 |
| | 2000 | 0.8 | 2.7 | 1.7 |
| RUSTIC SHORES | 1997 | 0.4 | 0.6 | 0.5 |
| | 1998 | 0.3 | 0.5 | 0.4 |
| | 1999 | 0.5 | 0.9 | 0.7 |
| | 2000 | 0.3 | 0.6 | 0.4 |